

What's New for 2017

The latest Engine Brake technology and updates

Cummins X15 – The 2017 X15 engine brake has been optimized to improved braking horsepower by 10% in the optimal rpm range of 1200-1500 RPM.

ISX12 – As of October 1, 2013, both Natural Gas and Diesel ISX12 engines now use the 465A model (front housing: P/N 41818, Cummins 4330249 / rear housing: P/N 41817, Cummins 4330250). The model will include corrosion protection to withstand condensation during long idling periods. Furthermore, Jake Brake model 465A is approved for use on ISX12 diesel engines manufactured from 2010-12 that previously used model 460. When the 465A model is used on any model year, the ISX12 brake lash should be set according to the housing nameplate.

ISX12 – A tune up kit is now available for the ISX12 (P/N 4376508). An engine brake upfit kit is also available (P/N 4309432).

Brake Upfit Instructions – Cummins authorized distributors can use the link below to access IMS parts listing work instructions.
https://qsol.cummins.com/common/files/qsol/en/service/engine_brake_upfit_instructions.pdf

Aftermarket Kit – To retrofit ISL engines with a Jacobs' Engine Brake®, Jacobs offers aftermarket kits. In addition to the kits listed below, contact your local Cummins' dealer for additional Cummins' parts required for installation.

| OPTIONS FOR ISC / ISL ENGINES | | |
|--------------------------------|----------------------|------------------------|
| | OPTION TO BE REMOVED | OPTION TO BE INSTALLED |
| ISC / ISL CM2150 (2007 EPA) | BR9296 | BR9297 |
| | ER9058 | ER9059 |
| | RL9777 | RL9778 |
| | VC9361 | VC9364 |
| ISC / ISL CM2250 (2010 EPA) | BR9300 | BR9301 |
| | ER9142 | ER9143 |
| | RL9777 | RL9778 |
| | VC9469 | VC9470 |
| ISC / ISL CM2350 (2013 EPA) | BR9300 | BR9301 |
| | ER9142 | ER9143 |
| | RL9815 | RL9816 |
| | VC9469 | VC9470 |
| | | EB9038 |

All your parts, cross-references, & service questions can be answered on the Jacobs' website.
 For more information, visit www.jacobsvehiclesystems.com/parts-service-support.

Find us on



PACCAR

MX11 - There is no tune-up kit available for the MX11 as it includes non-serviceable rocker arms.

MX13 - Jacobs' housing P/N 42194 (PACCAR 1945026) replaces P/N 40549 (1875607). The coating on the rocker arm components has been removed to match Jacobs' European product. There is no impact to fit, form, or function.

Unlike the MX11, the MX13 rocker arms are serviceable.

CAT®

349A - CAT 349A has been obsoleted and replaced with 346D.

336, 336A, 317D, & 317E housings and kits are no longer available.

CAT Application Guide - Recently updated! Visit our Parts, Service, & Support page and select your engine and brake model.



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71/92/53A Series - Contact your local MTU dealer for genuine Jake Brake parts for aftermarket or tune-up kits.



Model 5783A – The International A26 engine has up to 67% increase in engine braking performance at lower engine speeds with the new Variable Geometry Turbo.

Model 5313/5326 – Common Actuator Piston & Housing: As of Sept. '13*, all rail brake models use the same common actuator piston adjusting screw. As of Nov. '14**, all rail brake models now use the same common housing. Jacobs' part numbers have not been changed, but Navistar has issued new part numbers. Replacement part numbers may not match the current brake, but the new actuator piston is backwards compatible. As of Dec. '15***, the Navistar sub-assembly part numbers have been revised. Reference the chart on the right for updated part numbers.

Jacobs' Actuator Piston part numbers have also been updated for Jacobs' P/N 038054 (Navistar 1841377C91) and 38296 (Navistar 1833946C91). Both parts have been replaced by 38296 (Navistar 1833946C92).

AFFECTED NAVISTAR MODELS

| MODEL / ENGINE | PART NUMBER | | DESCRIPTION |
|-------------------------------------|-------------|--|------------------------------|
| | JVS | NAVISTAR | |
| 5313 12VDC I-313 / I-341 Engines | 38053 | Old 1847786C96 Old 1847786C97* Old 1847786C98** New 1847786C99*** | Rail Assembly Final 12VDC |
| 5313 24 VDC I-335 Engine | 37135 | Old 1847989C96 Old 1847989C97* Old 1847989C98** New 1847989C99*** | Rail Assembly Final 24VDC |
| 5326 12VDC I-326 Engine | 35302 | Old 1833945C95* Old 1833945C96** New 1833945C97*** | Rail Assembly Final 12VDC |

SOLENOID REFERENCE GUIDE

CURRENT 12VDC SOLENOID VALVES, TYPE I

| JACOBS PART NUMBER | DESCRIPTION | CAT | CUMMINS | MODELS USED |
|--------------------|---------------------|----------|---------|---|
| 1020997 | 12VDC, D/L, V-BLADE | N/A | 4026538 | Model 129, Intebrake |
| 1024610 | 12VDC, D/L, H-BLADE | 163-1533 | 3871711 | Models 310A, 312A, 340A/B/C/D/E, 411C |
| 1024612 | 12VDC, S/L, SCREW | N/A | N/A | Models 71/92A, 760A/B, 750A/B, 765A, 770, 790 (All), 765, 797A, C346D |
| 1024613 | 12VDC, S/L H-BLADE | 163-1550 | 3871707 | Models 53A, 71/92, 317A/B/C/E, 404B/BG/D, 411D/E, 425A, 430, 440A, 450A/B, 455B/C |
| 1024614 | 12VDC, S/L V-BLADE | 163-1547 | 4024759 | Models C336A, C346A/B/C, 349A, 490A, 610, 680A/B, 690B, Intebrake |
| 1034737 | 12VDC, D/L, SCREW | N/A | N/A | 797B |

CURRENT 12VDC SOLENOID VALVES, TYPE II

| JACOBS PART NUMBER | DESCRIPTION | CUMMINS | DAIMLER | NAVISTAR | PACCAR | MODELS USED |
|--------------------|-------------|---------|-------------|-----------|---------|-------------------|
| 1039012 | 12VDC, D/L | 3686406 | N/A | N/A | N/A | 460 / Intebrake A |
| 039895 | 12VDC, D/L | N/A | N/A | 3008453C1 | N/A | 5783 / 5783A |
| 1034302 | 12VDC, D/L | N/A | A4721530759 | N/A | N/A | 721 |
| 041152 | 12VDC, D/L | N/A | N/A | N/A | 1889796 | MX-11 |

ELECTRICAL SPECIFICATIONS

| COIL | ACCEPTABLE RESISTANCE (Ω @ 77°F) | MINIMUM OPERATING VOLTAGE | MAXIMUM OPERATING VOLTAGE |
|--------------|----------------------------------|---------------------------|---------------------------|
| 12 Volt Coil | 8.7-10.0 | 9.0 | 14.0 |
| 24 Volt Coil | 32.6-39.8 | 18.0 | 32.0 |